22

App. F. IX-4

Previous References 1940-1 (War)

War File No. 170-40
Serial Nos. 1

Later References.

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. One only.

Part B for March 1942

SUBJECT.

Standard Subsidiary A.R.P. Scheme form.

M Krishnan
24.3.42

WD 0573—GPB—22,500—12-9-39

1335/W

Standard Subsidiary A R P Scheme Form

General and Revenue Secretariat | File No. | of 194 . | [App. F. III—2

Serial No.

From The A R P Controller

A R P · 297 · 12th inst · 42 forwarding a copy of the Standard Subsidiary A R P Scheme for application to buildings in the City.

A copy of the Standard Subsidiary Scheme has been drawn for the information of Govt Departments & also includes the instructions regarding Shelters. Submitted for perusal.

13/3

(Chief Secy)

13/3

Law Secretary

I set returned herewith

19/3

19/3

C. F. O. MAR 19 1942 No. 9320

Z

— 13 MAR

NOTE—Contn. Sheet.

WD 04155—GPB—55,000—23-10-41

ORIGINAL
~~DUPLICATE~~

W 170-40-1

1335/W

WD 02721—GPB—40,000—3-7-41

Form No. 24]

MYSORE POLICE DEPARTMENT.

In reply, please quote number, date and short title.*

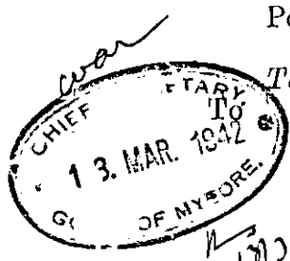
Received.....*Registered*.....

From (Name) N. Madhava Rao, Esq., B.A.,

(Designation) Spl. A.R.P. Officer,

Post Box....., (STATION) .....Bangalore.....

Telegraphic Address.....



To

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

SIR,

A.R.P. No.297/41-42 *dated*...12th March...*1942*.

ENCLOSURES ..6.....
.....
.....5.....
SPARE COPIES .....

STANDARD SUBSIDIARY A.R.P. SCHEME FORM.

I have the honour to submit for the information of Government, a copy of the Standard Subsidiary A.R.P. scheme for important buildings in the City.

I have the honour to be,
Sir,
Your most obedient servant,
N. Madhava Rao

KVN.

Spl. A.R.P. Officer, &
A.R.P. Controller.

WD 06026—GPB—1,000—7-3-42

SCHEDULE C.

FIRE PARTIES :—

	First relief.	Second relief.	Third relief.
1. Numbers of parties	....		
2. Location of each party	....		
A	....		
B	....		
C	....		
Etc.,	....		

NOTE.—1. Fire parties can be conveniently stationed in Warden's Posts and one in the Control Post and will consist of 3 persons with stirrup pump and accessories. One such party should be formed for every 4000 Sq. ft. or less of floor space in the case of cinemas and places of public resort and one for every 8000 sq. ft. of floor space in the case of other buildings. Each floor should have one unit at least with an addition al unit in case of places like record rooms, libraries etc.

2. For buildings with flat roofs roof watches from the staff may be appointed.

3. Sand bags should be stored on the prescribed scale of 12 bags (18"×13") three-fourths filled for every 1,000 sq. ft. of the floor space with sufficient sand in containers *i.e.*, buckets and drums.

4. Water in buckets to be kept at every 50 feet on every floor. In addition for very large buildings static water tanks capable of holding say, 2000 to 5000 gallons should be constructed.

SCHEDULE D.

FIRST AID.

First relief. Second relief. Third relief.

1. Location of First Aid posts ....

2. No. of First Aiders ....

3. List of first aid equipment required for dealing with minor injuries.

NOTE.—1. Only minor First Aid equipment is necessary, *e.g.*, small dressings, a few bandages, iodine, etc.

2. Personnel for First Aid work should have first aid training.

3. Equipment—If the premises are very large, include two stretchers, one First Aid box containing bandages, shell and first field dressings, tourniquet, etc. The Personnel for a First Aid post of this description should include at least one stretcher party trained in First Aid.

SCHEDULE E.

Protection of Personnel—Shelters.—

[A separate shelter scheme should be drawn up and attached to the main subsidiary scheme.]

NOTE.—For instructions please see the enclosed memo (attached to the original). The safety of the refuge rooms should be certified to by an Engineer. The total number of persons to be allotted to any refuge room should not exceed 50 and to any slit trench 25

SCHEDULE F.

Special arrangements required for the protection of valuable records, inflammable materials, etc.

SCHEDULE G.

1. Whether special strengthening of any part of the building is necessary and the cost thereof.

2. Remarks of the Engineer in charge of the building.

3. Places from which glass is to be removed.

4. Parts of the building to be made blast and splinter proof.

NOTE.—For details please refer to the A. R. P. Hand book No. 5 (Structural defence). Precautions to be adopted are with special reference to blast and splinter effects and against the load of falling debris. The removal of glass from places set apart as shelters is obligatory and is desirable wherever it can possibly be done.

~~ORIGINAL~~
DUPLICATE

A. R. P.

Standard Subsidiary Scheme Form.

[The precautions outlined in this are intended for Government and other institutions and large buildings accommodating 50 or more persons at a time but do not apply to Factories or Workshops.]

INSTRUCTIONS.

1. Forms will be supplied in duplicate.

2. They may be filled in and returned to the A. R. P. Controller (in the case of Government buildings through the head of the department.)

3. The duplicate copy will be retained in the A. R. P. office and the original returned after scrutiny by the A. R. P. Controller.

NOTE.—If there is any doubt or difficulty the A. R. P. Controller may be consulted in person.

WD 06026—GPB—1,000—7-3-42

SCHEDULE A.

1. Name of building or buildings ....
2. Number of building ....
3. Type of building (whether flat roof or tiled roof).
4. Number of storeys ....
5. Plinth area.—
   Flat roof building ....
   Tiled roof building ....
6. Normal number of occupants in each building.
7. Number of active staff available for A. R. P. duties.
8. Description and quantity of fire equipment already provided.
9. Number of fire hydrants within 100 yards of the building.
10. Size of water main to which fire hydrant is attached.
11. Independant water-supply e.g., well, pond or storage tank (State capacity in gallons).
12. Number of telephones in the building or buildings and where located.
13. Telephone Exchange Nos. ....
14. Whether A. R. P. air raid alarm sirens are audible.—
    (*a*) Inside the building ....
    (*b*) Outside only ....
15. Nearest A. R. P. first-aid post ....
16. Hospital area in which building is situated * ....
17. Nearest A. R. P. Rescue Depot ....
18. Nearest Fire Station ....
19. A. R. P. Division and Warden's post area in which building is situated.

NOTE.

The liabilities of the General A. R. P. scheme are—

1. Public Warning.
2. General lighting restrictions.
3. Heavy Fire-figting.
4. Rescue and demolition.
5. Major first-aid and Hospitalization.

The responsibilities of the Subsidiary scheme are—

1. Reporting damage to Control room.
2. Local Fire-fighting.
3. Protection of the personnel.
4. Protection of valuable records, porperty etc., in the building.
5. Structural precautions.
6. Minor First aid.

It is proposed to divide the City into 2 Hospital areas namely the northern area served by the St. Martha's Hospital and the Central and southern areas by the Victoria Hospital.

SCHEDULE B.

I. CONTROL POST.

	1st relief.	2nd relief.	3rd relief.
1. Officers' Names by shifts—			
2. Messengers	....		
3. Telephone No.	....		
4. Internal alarm and arrangements to give the alarm.			

II. WARDENS' POSTS.

	1st relief	2nd relief.	3rd relief.
1. Name and addresses of building wardens detailed for duty in each part of the building.			
2. Location of posts by areas.—			
A			
B			
C			
etc.			

NOTE.—1. Controlling Officers should be senior officials.

2. It is intended that they shall work in reliefs in the same way as for the rest of the staff.

3. The control post should be located as centrally as possible in the building. The room should contain a telephone and should be supplied with A. R. P. damage report form books—Form 1 and pencils.

4. All bomb damage should be reported to the Control Officer who will report to the Central A. R. P. Control direct—(Telephone No.)

5. In buildings and establishments working at night also like Cinemas, Hotels etc., emergency lights duly shaded should be provided.

6. The building or compound or groups of buildings should be divided into convenient areas, a wardens' post being located in each area.

7. Wardens will work in pairs their duties being to watch for damages and to take charge of incidents when action is necessary.

8. They require training in methods of reporting damage and in use of A. R. P. damage report form 1. for which they may be sent to the A R. P. training classes.

9. Equipment for each Wardens' post should be—

Armlets ...	... 2
Whistles ...	... 2
Report form Book 1	... 2
Electric torches	... 2

SCHEDULE C.

FIRE PARTIES :—

	First relief.	Second relief.	Third relief.
1. Numbers of parties	....		
2. Location of each party	....		
A	....		
B	....		
C	....		
Etc.,	....		

NOTE.—1. Fire parties can be conveniently stationed in Warden's Posts and one in the Control Post and will consist of 3 persons with stirrup pump and accessories. One such party should be formed for every 4000 Sq . ft. or less of floor space in the case of cinemas and places of public resort and one for every 8000 sq. ft. of floor space in the case of other buildings. Each floor should have one unit at least with an addition al unit in case of places like record rooms, libraries etc.

2. For buildings with flat roofs roof watches from the staff may be appointed.

3. Sand bags should be stored on the prescribed scale of 12 bags (18"×13") three-fourths filled for ev ery 1,000 sq. ft. of the floor space with sufficient sand in containers *i.e.*, buckets and drums.

4. Water in buckets to be kept at every 50 feet on every floor. In addition for very large buildin gs static water tanks capable of holding say, 2000 to 5000 gallons should be constructed.

SCHEDULE D.

FIRST AID. First relief. Second relief. Third relief.

1. Location of First Aid posts ....

2. No. of First Aiders ....

3. List of first aid equipment required for dealing with minor injuries.

NOTE.—1. Only minor First Aid equipment is necessary, *e.g.*, small dressings, a few bandages, iodine, etc.

2. Personnel for First Aid work should have first aid training.

3. Equipment—If the premises are very large, include two stretchers, one First Aid box containing bandages, shell and first field dressings, tourniquet, etc. The Personnel for a First Aid post of this description should include at least one stretcher party trained in First Aid.

SCHEDULE E.

Protection of Personnel—Shelters.—

[A separate shelter scheme should be drawn up and attached to the main subsidiary scheme.]

NOTE.—For instructions please see the enclosed memo (attached to the original). The safety of the refuge rooms should be certified to by an Engineer. The total number of persons to be allotted to any refuge room should not exceed 50 and to any slit trench 25

SCHEDULE F.

Special arrangements required for the protection of valuable records, inflammable materials, etc.

SCHEDULE G.

1. Whether special strengthening of any part of the building is necessary and the cost thereof.

2. Remarks of the Engineer in charge of the building.

3. Places from which glass is to be removed.

4. Parts of the building to be made blast and splinter proof.

NOTE.—For details please refer to the A. R. P. Hand book No. 5 (Structural defence). Precautions to be adopted are with special reference to blast and splinter effects and against the load of falling debris. The removal of glass from places set apart as shelters is obligatory and is desirable wherever it can possibly be done.

~~ORIGINAL~~
DUPLICATE

A. R. P.

Standard Subsidiary Scheme Form.

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WD 06026—GPB—1,000—7-3-42

SCHEDULE A.

1. Name of building or buildings ....
2. Number of building ....
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   Flat roof building ....
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6. Normal number of occupants in each building.
7. Number of active staff available for A. R. P. duties.
8. Description and quantity of fire equipment already provided.
9. Number of fire hydrants within 100 yards of the building.
10. Size of water main to which fire hydrant is attached.
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Whistles ...	... 2
Report form Book 1	... 2
Electric torches .	... 2

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4. Parts of the building to be made blast and splinter proof.

NOTE.—For details please refer to the A. R. P. Hand book No. 5 (Structural defence). Precautions to be adopted are with special reference to blast and splinter effects and against the load of falling debris. The removal of glass from places set apart as shelters is obligatory and is desirable wherever it can possibly be done.

A. R. P.

INSTRUCTIONS REGARDING SHELTERS.

1. Refuge Rooms in Buildings.

Situation.—If your house is built of solid brick walls 13½" thick or in reinforced concrete, select an inner room or passage which has the minimum number of doors and windows. A room in the basement floor, if any, is the best. Otherwise select a room in the ground floor. Avoid rooms adjacent to verandahs and shop fronts which have more of voids than solids in their walls. Refuge rooms should as far as possible adjoin large open spaces and soft ground.

Preparation of the Refuge Room.—Remove all glass panes in the refuge room and preferably block up the windows and extra doors with brick in mortar 13½" thick if there is an opening for air and light from the interior of the building. Otherwise build a baffle wall 13½" thick or an earth box barrier against the opening as shown in the accompanying sketch.

Arrange to give additional struts to roof if there is a floor above since rafters may have to stand the additional load of falling debris. Special supports to the roof have to be provided near the exit for emergency. (Please consult an Engineer when you have to strut an R. C. roof.) Reinforced concrete 5½" thick, Jack arch and Madras terrace will generally resist 2 to 5 lbs. incendiary bombs. In case of wooden joists paint them with a thick coat of fire resisting material. Remove all heavy and inflammable articles from the top of the room.

If it is not possible to have a refuge room of the above description, the best thing to do is to go into a slit trench.

2. Slit Trenches.

Situation.—The sites for the trenches must be so selected that they are within easy reach of all personnel (*i.e.*, the personnel can occupy them in a period of 1 to 3½ minutes) and quite clear of all other structures. They must not be sited nearer than half the height of the adjacent buildings. Wherever possible the trenches may be dug under wide spreading trees.

Guard Trenches.—Considerable additional protection against possible earth movement can be given by guard trenches 18" wide carried down to the foundations of the trenches. These should be filled with brush wood or some similar material to prevent failure from weathering. The minimum distance a guard trench should be constructed away from the trench it is designed to protect, should be twice the depth of the trench bottom below ground level.

Space per person.—Approximately 4 sq. ft. floor space must be allowed per person in open trenches.

Accommodation and spacing.—In order to minimise the casualties from a direct hit the unit size of shelter is limited to parties not exceeding 25 and for the same reason there should be a clear space of not less than 25 feet between any two shelters: 40 to 50 feet is to be preferred where space permits.

Entrances.—Not less than 2'-6" in width must be provided at every entrance and the approach ramps should not be steeper than 1 in 6. Where space does not permit of sloping ramps steps may be provided, but they must be maintained in good condition.

Drainage.—Wherever possible sites should be so selected that they will have facilities for natural drainage. Where this is not possible a sump should be provided and the water baled out.

Sanitary Arrangements.—One latrine must be provided for every 25 persons accommodated in the trenches.

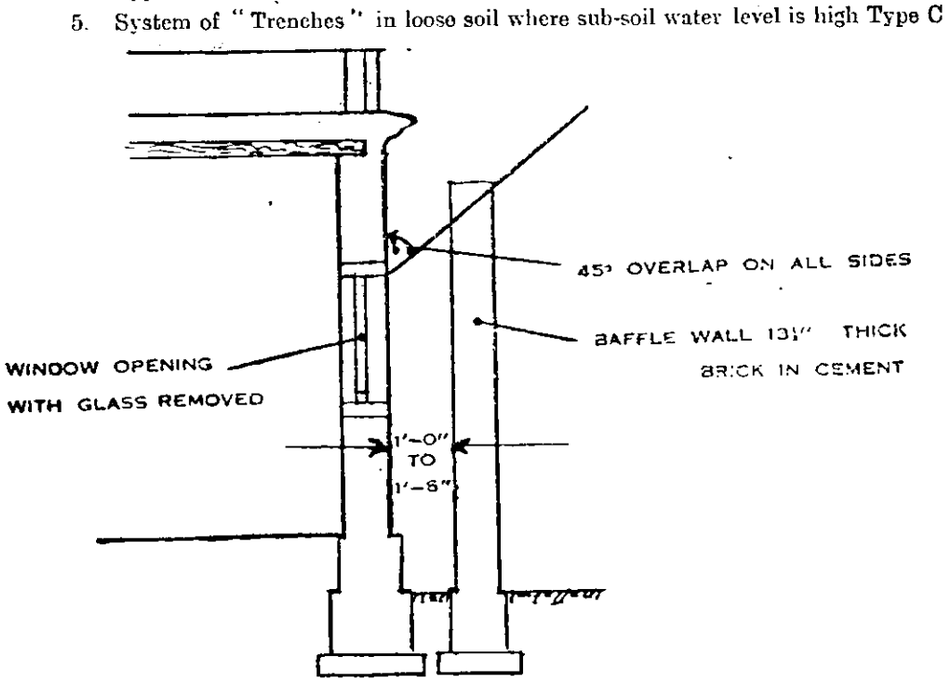
Dangerous Pipes, etc.—Pipes, tanks or containers which may prove a source of danger (such as pipes or containers conveying or holding stream, water, compressed air, etc., etc.) are not to be permitted in or near any air raid trench.

Covering.—As the idea of cover is mostly against splinters which fly laterally top cover is not necessary but trenches may be covered with light brush wood if preferred.

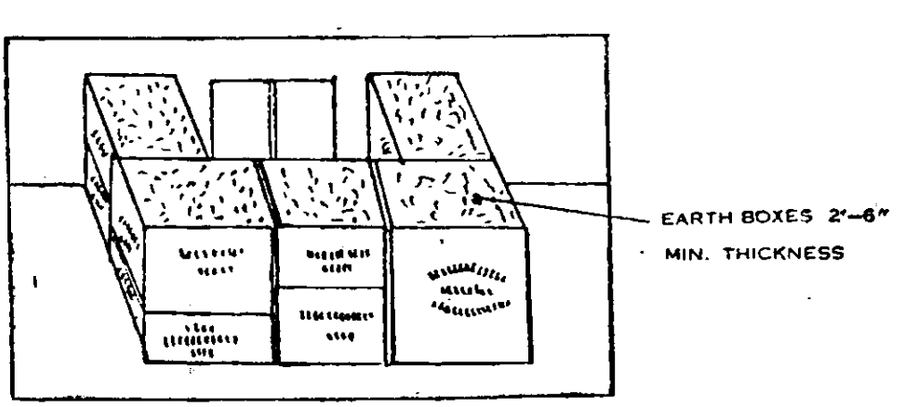
Special Features.—The arms of the trench are made zigzag with a view to minimise the casualties from a direct hit from low flying aircraft since the plane cannot take sudden turns during its flight.

The following typical designs are given :—

1. Typical cross-section of a baffle wall against an opening.
2. Earth box barrier against an opening.
3. Typical layout of Air Raid Precautions trenches.
4. Typical cross sections of trenches in hard and loose soils. Types A & B.
5. System of "Trenches" in loose soil where sub-soil water level is high Type C

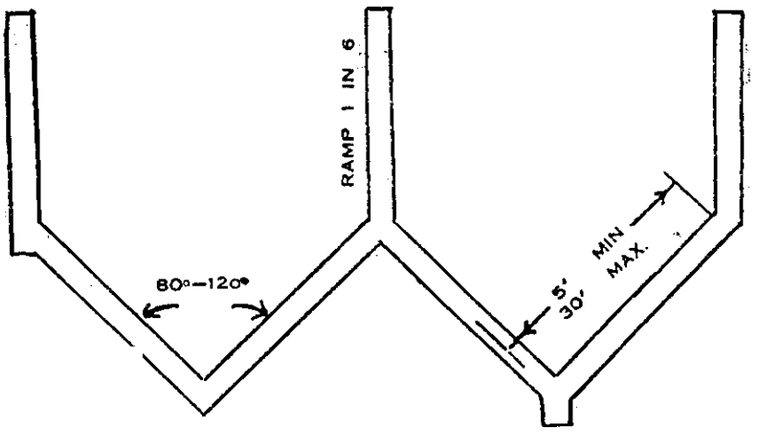


BAFFLE WALL AGAINST A WINDOW



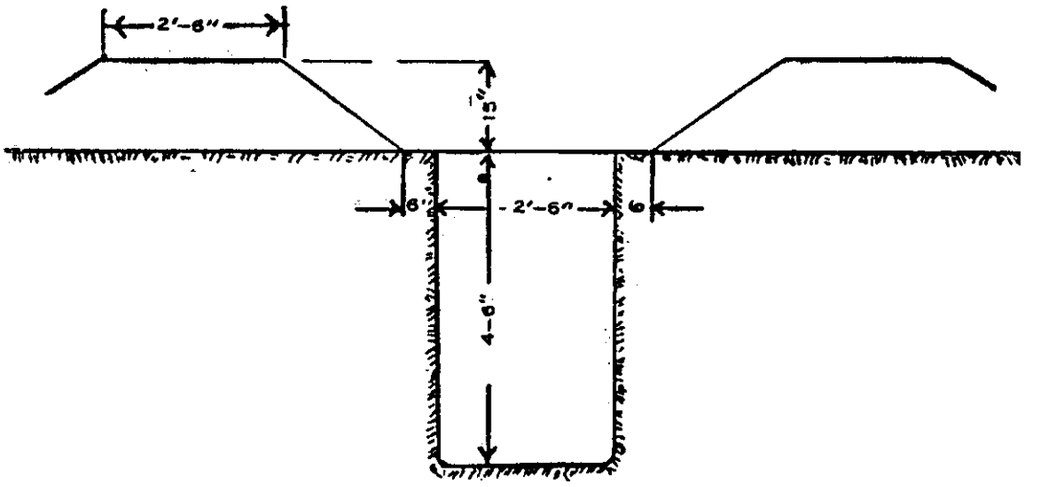
WINDOW PROTECTED BY BOXES OF EARTH

TYPICAL LAYOUT PLAN OF A. R. P. TRENCHES

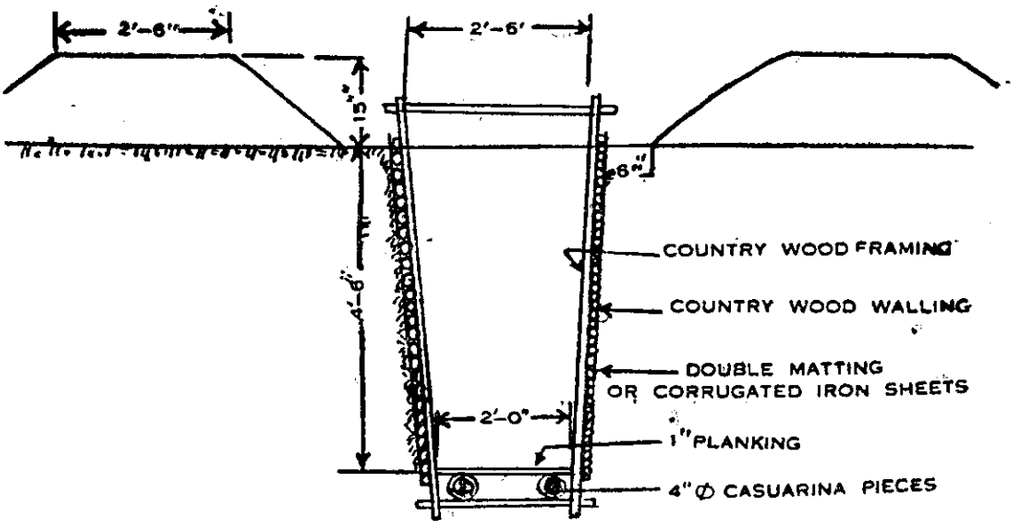


TYPICAL CROSS SECTIONS OF A. R. P. TRENCHES

TYPE 'A'

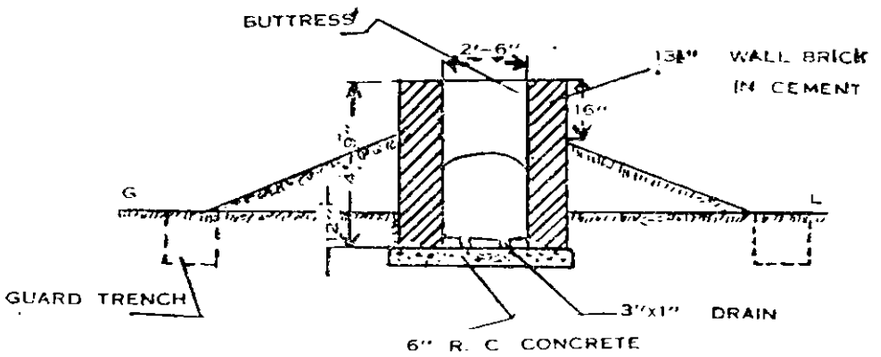


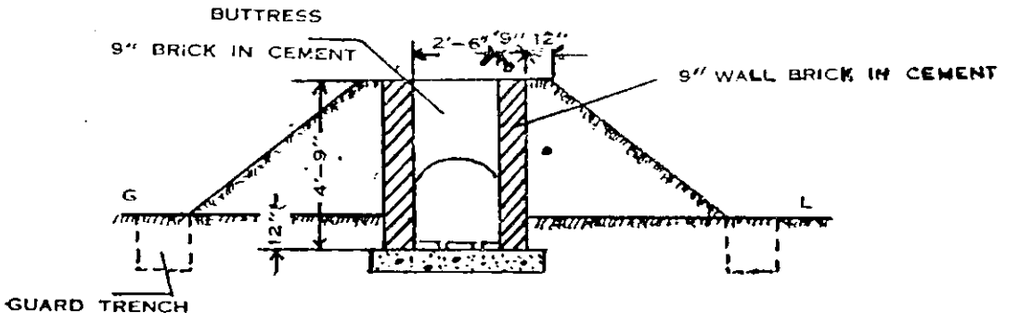
TYPE 'B'



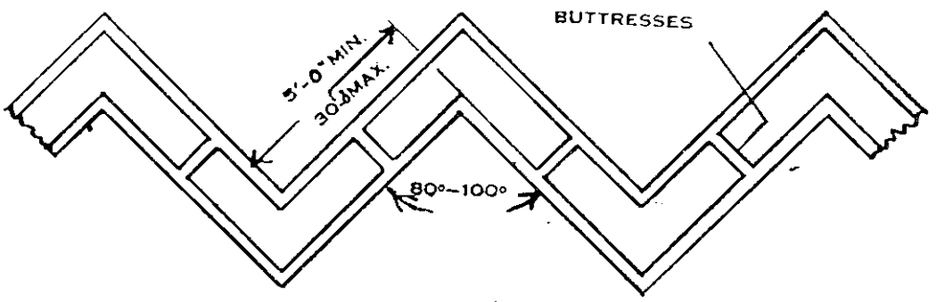
TRENCH FOR USE IN WATER LOGGED OR LOW LYING GROUND

TYPE 'C'





ALTERNATIVE CROSS SECTION WHERE SUFFICIENT EARTH IS AVAILABLE



PLAN

BANGALORE,
Dated 22nd February 1942.

N. MADHAVA RAO,
Special A. R. P. Officer.

WD 3695—GPB—10,000—23-2-42.